

APPENDIX C

**VISUAL RESOURCE INVENTORY FOR
JEFFERSON PROVING GROUND**

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VISUAL RESOURCE INVENTORY FOR JEFFERSON PROVING GROUND

The visual resource inventory is a means for determining visual values at Jefferson Proving Ground (JPG). The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones. Based on these three factors, the land is placed into one of four visual resource inventory classes. These inventory classes represent the relative value of the visual resources with Classes I and II being the most valued, Class III representing a moderate value, and Class IV being of least value.

This evaluation is based on the Bureau of Land Management's (BLM's) guidance, as presented in the Visual Resource Inventory Manual, H-8410-1 (<http://www.blm.gov/nstc/VRM/8410.html>). Excerpts from this document are provided to support understanding of the evaluation process and the results of the inventory for JPG.

SCENIC QUALITY EVALUATION

Scenic quality is a measure of the visual appeal of a tract of land. In the visual resource inventory process, public lands are given an A, B, or C rating based on the apparent scenic quality, which is determined using seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications (see Table C.1 for definitions). Given the distinct differences in the two areas of JPG referred to as the Cantonment Area and the Area North of the Firing Line, the installation was subdivided into these two scenic quality rating units.

SENSITIVITY LEVEL ANALYSIS

Sensitivity levels are a measure of public concern for scenic quality. Land is assigned high, medium, or low sensitivity levels by analyzing the various indicators of public concern. Factors considered include:

- **Types of Users.** Visual sensitivity will vary with the types of users. Recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.
- **Amount of Use.** Areas seen and used by large numbers of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increases.
- **Public Interest.** The visual quality of an area may be of concern to local, State, or National groups. Indicators of this concern are usually expressed in public meetings, letters, newspaper or magazine articles, newsletters, land-use plans, etc. Public controversy created in response to proposed activities that would change the landscape character should also be considered.
- **Adjacent Land Uses.** The interrelationship with land uses in adjacent lands can affect the visual sensitivity of an area. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be visually sensitive.

Table C.1. Scenic Quality Inventory Evaluation Criteria and Scores

Key Factor	Rating Criteria (Score)		
Landform	High vertical relief as expressed in prominent cliffs, spires, or massive rock outcrops, or severe surface variation or highly eroded formations, including major badlands or dune systems; or detail features dominant and exceptionally striking and intriguing such as glaciers (5)	Steep canyons, mesas, buttes, cinder cones, and drumlins; or interesting erosional patterns or variety in size and shape of landforms; or detail features which are interesting though not dominant or exceptional (3).	Low rolling hills, foothills, or flat valley bottoms; or few or no interesting landscape features (1).
Vegetation	A variety of vegetative types as expressed in interesting forms, textures, and patterns (5).	Some variety of vegetation, but only one or two major types (3).	Little or no variety or contrast in vegetation (1).
Water	Clear and clean appearing, still, or cascading white water, any of which is a dominant factor in the landscape (5).	Flowing, or still, but not dominant in the landscape (3).	Absent, or present, but not noticeable (0).
Color	Rich color combinations, variety or vivid color; or pleasing contrasts in the soil, rock, vegetation, water or snow fields (5).	Some intensity or variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element (3).	Subtle color variations, contrast, or interest; generally mute tones (1).
Influence of Adjacent Scenery	Adjacent scenery greatly enhances visual quality (5).	Adjacent scenery moderately enhances overall visual quality (3).	Adjacent scenery has little or no influence on overall visual quality (0).
Scarcity	One of a kind; or unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc. (5+)	Distinctive, though somewhat similar to others within the region (3).	Interesting within its setting, but fairly common within the region (1).
Cultural Modifications	Modifications add favorably to visual variety while promoting visual harmony (2).	Modifications add little or no visual variety to the area, and introduce no discordant elements (0).	Modifications add variety but are very discordant and promote strong disharmony (-4).

Source: BLM Visual Resource Inventory Manual, H-8410-1.

Note: Values for each rating criterion are maximum and minimum scores only. It also is possible to assign scores within these ranges.

- **Special Areas.** Management objectives for special areas, such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Areas of Critical Environmental Concern (ACEC), frequently require special consideration for the protection of the visual values. This does not necessarily mean that these areas are scenic, but rather that one of the management objectives may be to preserve the natural landscape setting. The management objectives for these areas may be used as a basis for assigning sensitivity levels.
- **Other Factors.** Consider any other information, such as research or studies, that includes indicators of visual sensitivity.

DISTANCE ZONES

Landscapes are subdivided into three distanced zones based on relative visibility from travel routes or observation points. The three zones are: foreground-middleground (fm), background (bg), and seldom

seen (ss). The fm zone includes areas seen from highways, rivers, or other viewing locations, which are less than 3 to 5 miles away. Seen areas beyond the fm zone, but usually less than 15 miles away, are in the bg zone. Areas not seen as fm or bg (i.e., hidden from view) are in the ss zone.

VISUAL RESOURCE INVENTORY CLASSES

Visual resource inventory classes are assigned through the inventory process. Class I is assigned to those areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as national wilderness areas, the wild section of national wild and scenic rivers, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape. Classes II, III, and IV are assigned based on a combination of scenic quality, sensitivity level, and distance zones. This is accomplished by combining the three overlays for scenic quality, sensitivity levels, and distance zones and using the guidelines to assign the proper class.

In 2000, the Area North of the Firing Line was designated as the Big Oaks National Wildlife Refuge. The refuge, established under a Memorandum of Agreement between the U.S. Fish and Wildlife Service, U.S. Army, and U.S. Air Force, overlays the property that would remain under Army ownership. Because of its classification as a national wildlife refuge, the 50,000-acre Area North of the Firing Line is designated as Class I. Therefore, it was not necessary to complete the scenic quality evaluation, sensitivity level analysis, and distance zone determination.

As a result of the visual resource inventory process, the Cantonment Area is designated as Class IV.

U.S. Department of the Interior
Bureau of Land Management
Form 8400-1 (September 1985)
SCENIC QUALITY FIELD INVENTORY

Date: April 9, 2002
District: N/A
Resource Area: JPG
Scenic Quality Rating Unit: 001 (Cantonment Area)

1. **Evaluators (names):** Ken Knouf, Paul Cloud, Corinne Shia

2. **Landscape Character**

Category	a. Landform/Water	b. Vegetation	c. Structure (General)
Form	Flat to rolling topography	Floristically diverse, including meadows and hardwood forests. Supports assemblage of vegetation associations.	Irregularly shaped 4,000-acre area
Line	Flat terrain with facility structures and roads introducing changes in landform	Built-up area was constructed to support former operations; therefore, lines are distinct and regular	Layout reflects mission and operations (e.g., structures and roads)
Color	Green, white, red, etc., based on structures and vegetation	Seasonal changes in trees and vegetation (green, red, yellow, brown, etc.)	Brick and wooden buildings and treed landscape
Texture	Rough to smooth, depending on site feature (trees, buildings, lakes, streams, etc.)	Dense in undeveloped areas. Developed areas include trees, grass, bushes, etc.	Variable textures depending on composition of developed and undeveloped areas

3. **Narrative**

JPG topography is flat to rolling, with most relief due to stream incision. Cantonment area is generally flatter than the Area North of the Firing Line. Approximately 40 percent of the 4,000 acres is improved land. The remaining land is primarily forested and includes a large lake used for recreational purposes.

4. **Score**

Criterion	High	Medium	Low	Explanation or Rationale	SCENIC QUALITY CLASSIFICATION <input type="checkbox"/> A: 19 or more <input type="checkbox"/> B: 12-18 <input type="checkbox"/> C: 11 or less
a. Landform	5	3	1	Topography is fairly level	
b. Vegetation	5	3	1		
c. Water	5	3	0	Krueger Lake	
d. Color	5	2 ^a	1	Area is fairly built up	
e. Adjacent Scenery	5	3	0	Area north of firing line enhances overall impression	
f. Scarcity	5	3	1		
g. Cultural Modification	5	0	-1 ^b	Structures detract slightly	

^aMaximum of 3 possible.

^bMaximum of -4 possible.

**U.S. Department of the Interior
Bureau of Land Management
Form 8400-1 (September 1985)
Scenic Quality Field Inventory**

Date: April 9, 2002
District: N/A
Resource Area: JPG
Scenic Quality Rating Unit: 002 (Area North of the Firing Line)

1. Evaluators (names)

Ken Knouf, Paul Cloud, Corinne Shia

2. Landscape Character

	a. Landform/Water	b. Vegetation	c. Structure (General)
Form			
Line			
Color			
Texture			

3. Narrative

Because of its classification as a national wildlife refuge, the 50,000-acre Area North of the Firing Line is designated as Class I. Therefore, it was not necessary to complete the scenic quality evaluation, sensitivity level analysis, and distance zone determination.

4. Score

Criterion	High	Medium	Low	Explanation or Rationale	SCENIC QUALITY CLASSIFICATION <input type="checkbox"/> A: 19 or more <input type="checkbox"/> B: 12-18 <input type="checkbox"/> C: 11 or less
a. Landform	5	3	1		
b. Vegetation	5	3	1		
c. Water	5	3	0		
d. Color	5	3	1		
e. Adjacent Scenery	5	3	0		
f. Scarcity	5	3	1		
g. Cultural Modification	5	0	-4		

U.S. Department of the Interior
Bureau of Land Management
Form 8400 (May 1984)
Scenic Quality rating summary

Date: April 9, 2002
District: N/A
Resource Area: JPG

1. Evaluators (names)

Ken Knouf, Paul Cloud, Corinne Shia

1. Scenic Quality Rating Units	2. Landform	3. Vegetation	4. Water	5. Color	6. Adjacent Scenery	7. Scarcity	8. Cultural Modification	9. Total Score	10. Scenic Quality Rating	11. Explanation
001	1	3	3	2	3	1	-1	12	B	Developed area intermingled with forest and a lake
002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	^a

N/A = Not applicable.

^aBecause of its classification as a national wildlife refuge, the 50,000-acre Area North of the Firing Line is designated as Class I. Therefore, it was not necessary to complete the scenic quality evaluation, sensitivity level analysis, and distance zone determination.

U.S. Department of the Interior
Bureau of Land Management
Form 8400 (May 1984)
Scenic level rating sheet

Date: April 9, 2002
District: N/A
Resource Area: JPG

1. Evaluators (names)

Ken Knouf, Paul Cloud, Corinne Shia

1. Sensitivity Level Rating Units	2. Type of User	3. Amount of Use	4. Public Interest	5. Adjacent Land Uses	6. Special Areas	7. Other Factors	8. Overall Rating	9. Explanation
001	M	L	L	L	L	L	L	Mixed land use
002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	National Wildlife Refuge ^a

^aBecause of its classification as a national wildlife refuge, the 50,000-acre Area North of the Firing Line is designated as Class I. Therefore, it was not necessary to complete the scenic quality evaluation, sensitivity level analysis, and distance zone determination.

DISTANCE ZONES

Scenic Quality Rating Unit	Distance Zones		
	Foreground-Middleground (fm) ^a	Background (bg) ^b	Seldom Seen (ss) ^c
001	fm		
002 ^d			

^aAreas seen from highways, rivers, or other locations <3 to 5 miles away.

^bSeen areas beyond foreground-middleground but less than 15 miles away.

^cAreas not seen as foreground-middleground or background (i.e., hidden from view).

^dBecause of its classification as a national wildlife refuge, the 50,000-acre Area North of the Firing Line is designated as Class I. Therefore, it was not necessary to complete the scenic quality evaluation, sensitivity level analysis, and distance zone determination.

VISUAL RESOURCE INVENTORY CLASSES

Sensitivity Level Rating Unit 001 (Cantonment Area)

Scenic Quality Classification: B

Scenic Level Rating: L

Distance Zone: Foreground-middleground (fm)

Visual Resource Inventory Class: IV (see below)

		High			Medium		Low	
Special Areas		I	I	I	I	I	I	I
Scenic Quality	A	II	II	II	II	II	II	II
	B	III	III	III IV	III	IV	IV	IV
	C	III	IV	IV	IV	IV	IV	IV
		fm	bg	ss	fm	bg	ss	ss
		Distance Zones						

Sensitivity Level Rating Unit 002 (Area North of the Firing Line)

Scenic Quality Classification: N/A

Scenic Level Rating: N/A

Distance Zone: Not Applicable (N/A)

Visual Resource Inventory Class: I (see below) because of its designation as a national wildlife refuge

		High			Medium		Low	
Special Areas		I	I	I	I	I	I	I
Scenic Quality	A	II	II	II	II	II	II	II
	B	III	III	III IV	III	IV	IV	IV
	C	III	IV	IV	IV	IV	IV	IV
		fm	bg	ss	fm	bg	ss	ss
		Distance Zones						